

## MEETING SUMMARY



**Prepared by:** MP Bergeron

**Date:** Wednesday, September 25, 2013

**Location:** Ecology Offices, Room 3A and 3B

**Purpose:** Discussion of proposed agenda for the Kickoff meeting planned for October 28 and 29, 2013 and preliminary results on recent updated of hydrogeologic framework for WMA C area

**Attendees (in person):** Marcel Bergeron (WRPS), Kristin Scott (WRPS), Mike Connelly (Freestone), Vicky Freedman (PNNL), Jeff Daniels (Cavendish/DOE-ORP), Marysia Skorska (ECY), Jeff Ayres (ECY), Alaa Aly (CH-PRC), Doug Hildebrand (DOE-RL), Michelle Hendrickson (ECY), Les Fort (WRPS), Joe Caggiano (ECY), Nancy Uziemblo (ECY), Beth Rochette (ECY), Donna Morgans (CH-PRC), Sunil Mehta (CH-PRC), Will Nichols (CH-PRC), Bill McMahon (CH-PRC), Dib Goswami (ECY), Mike Barnes (ECY), Kirk Cantrell (PNNL), Jim Alzheimer (ECY), Alex Nazarali (CTUIR), Brenda Jentzen (ECY), Les Fort (WRPS), Pat Cabbage (Freestone), Harold Sydnor (WRPS), Cindy Tabor (WRPS), Zelma Jackson (ECY), Jared Mathey (ECY)

**Attendees (on phone):** Don Lowman (NRC), Alex Teimouri (DOE-EM-12), Dirk Dunning (State of Oregon), Stan Sobczyk (Nez Perce), Matt Kozak (Intera), Dave Bernhard (Nez Perce), Damon Delistraty (ECY), Roger Seitz (SRNL), Greg Flach (SRNL), Andy Garabrants (Vanderbilt), Linda Suttora (DOE-EM)

The following topics were discussed (See attached slides used in the meeting):

Marcel Bergeron provided a status of past meeting notes (July 31, August 20, and August 28) and indicated that they were revised based on comments from Ecology and other attendees mentioned in the meeting minutes. Hard copies were provided to Ecology for final review concurrence.

Marcel Bergeron also reviewed the proposed agenda for the WMA C PA modeling analysis kickoff meeting planned for October 28 and 29.

**Dirk Dunning** – Made a comment that he wanted to make sure that the proposed schedule could accommodate discussion on various topics presented during the meeting

**Marcel Bergeron** – Indicated that although the agenda shows the meeting going to 10 am on 10/29, the room is reserved until noon of 10/29 and should be sufficient to accommodate ample amounts of discussion during the presentation.

**Mike Connelly** provided an overview of work he has been doing on a re-interpretation of the hydrogeologic framework at WMA C. Data considered in the re-interpretation included geophysical logging data and information at 50 direct push sites, 71 dry wells and 11 groundwater wells. Mike discussed the process he used to perform the re-interpretation including the processing of interpreted picks of geologic contacts in the boreholes by Kent Reynolds of Energy Solutions, a geologist who has been involved in geologic interpretation of geophysical logs in boreholes and wells through the RFI/CMS field characterization program. Mike also made use of picks of many of the same boreholes and wells that were made by Stan Sobczyk of the Nez Perce Tribe. Both of these interpretations resulted in the identification of 5 major hydrostratigraphic units at WMA C (See slide 2).

Three-dimensional visualization of geologic models of WMA C based on interpretations by Kent and Stan were presented. Both of these models will be considered as separate conceptual and numerical models in the PA effort. Mike noted that the two interpretations were very consistent in most areas, including inside the tank farm areas, but do diverge in areas where data is more sparse. Mike noted the differences between the two interpretations at the UPR-82 and UPR-86 areas and in some of the groundwater monitoring wells.

Mike also noted some differences in interpretations of the thickness of the H2 fine unit identified above the undifferentiated H3/Ringold/Cold Creek gravel unit. The differences in interpretations in the few boreholes in wells where this unit was identified resulted in different lateral distributions and pinching out of this unit between the two interpretations.

**Dirk Dunning** – Commented that fine-grained units were identified in the B-complex area and was wondering if similar units were found in the WMA C area.

**Mike Connelly** –Acknowledged that fine-grained units are found in the B-Complex that have contributed to the presence of perched water above the regional water table in that area. However, similar fine-grained units and related perched water have not been identified in the WMA C area.

**Dib Goswami:** Made comments about the general lack of wells to the west and northwest of WMA C that were considered in the interpretation

**Pat Cabbage** who assisted Mike Connelly in his interpretation, described the process used to identify wells within a 3 mile radius of WMA C. He commented on the general lack of boreholes and wells with good geologic data (borehole data with geophysical logging information) in areas west and northwest of the site.

**Dirk Dunning/Dib Goswami** – Both expressed a concern about the lack of well control in these areas.

**Dirk Dunning:** Asked if the interpretation identified the presence of riffles and ripples in the data you can see in outcrop. These types of features could be important in controlling flow and transport through the vadose zone

**Mike Connelly** – The geologic interpretations done here relied primarily on geophysical logs and that level of detail is not identifiable in the available data.

**Stan Sobczyk** – Agreed with Dirk that the occurrence of such features could be important to flow and transport in the vadose zone.

**Marcel Bergeron** - Discussed work that WRPS may fund at PNNL to begin to examine the potential effects of highly heterogeneous representation of the hydrogeologic framework at WMA C. These types of cases were identified as possible set of sensitivity cases in the scoping process.

**Joe Caggiano:** Asked about the scale of potassium-uranium-thorium (KUT) data in the logging information

**Mike Connelly/Stan Sobczyk:** Both Mike and Stan indicated the resolution of data in on the order of a foot.

There was much additional discussion of the difference in the distribution H2 fine unit. In the end, there was a general agreement about the amount of data available for these two interpretations is limited and that the resulting difference are subject to interpretation.

**Dirk Dunning:** Mentioned that if the website does not have the B-Complex report by PNNL posted that it should be posted. Also suggested that pictures of outcrops in trench 94 where the submarine components are should also be posted. This site is just due north of WMA C and these outcrops would likely be good examples of sediments that would likely be encountered at depth at WMA C.

**Marcel Bergeron** closed the meeting and reiterated that the next meeting would be the PA Modeling Analysis Kickoff meeting scheduled for October 28 and 29. Marcel also mentioned agenda and presentation for the meeting will be posted the Working session web-site and those who need help with access should give him a call.

# PROPOSED AGENDA FOR KICK-OFF MEETING

## OCTOBER 28TH

- 8:00 AM** Introduction & Opening Remarks (DOE, Ecology, NRC, EPA, others)  
**8:30 AM** Summary of Scoping Sessions (Marcel Bergeron, WRPS)  
**9:30 AM** Road Map for BRA and PA (Alaa Aly, INTERA)
- 9:45 AM Break
- 10:00 AM** Baseline Risk Assessment – Characterization & Monitoring Data Evaluation  
(Chris Magan & Alaa Aly, INTERA)
- 11:45 AM Lunch break
- 1:00 PM** Baseline Risk Assessment – Outline and Implementation Plan (Donna Morgans & Alaa Aly, INTERA)  
**2:00 PM** Overview of Technical Approach for Performance Assessment (Matt Kozak, INTERA)
- 2:45 PM** Transition from EIS Models of WMA C for use in PA Effort (Alaa Aly, INTERA)  
**3:15 PM** Scoping Analysis of Past Leaks and Losses (Matt Kozak, INTERA)
- 4:00 PM Adjourn

## OCTOBER 29TH

- 8:00 AM** Detailed Discussion of Technical Approach for Performance Assessment & Expected Products  
(Matt Kozak, INTERA)
- 9:00 AM** Closing Discussions & Remarks  
**10:00 AM** Adjourn

**Slide 1**



## Basalt

## ~33,000 Analytical Results

Pre-decisional Information for Internal Working Discussion Only Do not Reference, Copy or Disseminate

13

## Slide 2

### Action Items:

- Post B complex report by PNNL on working session website
- Locate pictures of sediment outcrops from trench 94 for posting on the working session website

**Concurrence:**

R Douglas H. Heblman  
DOE Project Manager (print)

R Douglas H. Heblman  
DOE Project Manager (signature)

11/13/2013  
Date

Jeffery J. Lyon  
Ecology Project Manager (print)

Jeffery J. Lyon  
Ecology Project Manager (signature)

11/13/13  
Date

---